

```

=> s CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/sqen
      3 CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/SQEN
      88776 SQL=30
L1      3 CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/SQEN
      (CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/SQEN AND SQL=30)

=> s CGTTCCTCTTCCTGCGGCCT/sqen
      7 CGTTCCTCTTCCTGCGGCCT/SQEN
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L2      7 CGTTCCTCTTCCTGCGGCCT/SQEN
      (CGTTCCTCTTCCTGCGGCCT/SQEN AND SQL=20)

=> s CGTTCCTCTTCC/sqen
      3 CGTTCCTCTTCC/SQEN
      181136 SQL=12
L3      3 CGTTCCTCTTCC/SQEN
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=> s CTGACAGAGCCCAACTCTTCGCGGTGGCAG/sqen
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      (CTGACAGAGCCCAACTCTTC/SQEN AND SQL=20)

=> s CCAACTCTTCGCGGTGGCAG/sqen
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L6      3 CCAACTCTTCGCGGTGGCAG/SQEN
      (CCAACTCTTCGCGGTGGCAG/SQEN AND SQL=20)

=> s GCTCTAGAATGAACGGTGGAAGGCGGCAGG/sqen
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      88776 SQL=30
L7      10 GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN
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DELETE L7? (Y)/N:y

=> s GCTCTAGAATGAACGGTGGAAGGCGGCAGG/sqen
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      88776 SQL=30
L7      10 GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN
      (GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN AND SQL=30)

=> s GCTCTAGAATGAACGGTGG/sqen
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L8      3 GCTCTAGAATGAACGGTGG/SQEN
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DELETE L8? (Y)/N:y

=> s GCTCTAGAATGAACGGTGG/sqen
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L8 3 GCTCTAGAATGAACGGTGG/SQEN
(GCTCTAGAATGAACGGTGG/SQEN AND SQL=19)

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L9 3 GCTCTAGAATGAACG/SQEN
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=> s GCTCTAGAATG/sqen
3 GCTCTAGAATG/SQEN
78387 SQL=11

L10 3 GCTCTAGAATG/SQEN
(GCTCTAGAATG/SQEN AND SQL=11)

=> s GCTCTAG/sqen
1 GCTCTAG/SQEN
49061 SQL=7

L11 1 GCTCTAG/SQEN
(GCTCTAG/SQEN AND SQL=7)

=> s CATTTTTTGTGTTGCTCTAGA/sqen
3 CATTTTTTGTGTTGCTCTAGA/SQEN
403090 SQL=20

L12 3 CATTTTTTGTGTTGCTCTAGA/SQEN
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=> s CGGGCCAGCAGCTGACA/sqen
3 CGGGCCAGCAGCTGACA/SQEN
331423 SQL=17

L13 3 CGGGCCAGCAGCTGACA/SQEN
(CGGGCCAGCAGCTGACA/SQEN AND SQL=17)

=> d his

(FILE 'HOME' ENTERED AT 09:48:12 ON 05 NOV 2004)

FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004

L1 3 S CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/SQEN
L2 7 S CGTTCCTCTTCCTGCGGCCT/SQEN
L3 3 S CGTTCCTCTTCC/SQEN
L4 3 S CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN
L5 3 S CTGACAGAGCCCAACTCTTC/SQEN
L6 3 S CCAACTCTTCGCGGTGGCAG/SQEN
L7 10 S GCTCTAGAATGAACGGTGAAGGCGGCAGG/SQEN
L8 3 S GCTCTAGAATGAACGGTGG/SQEN
L9 3 S GCTCTAGAATGAACG/SQEN
L10 3 S GCTCTAGAATG/SQEN
L11 1 S GCTCTAG/SQEN
L12 3 S CATTTTTTGTGTTGCTCTAGA/SQEN
L13 3 S CGGGCCAGCAGCTGACA/SQEN

=> file caplus
COST IN U.S. DOLLARS
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
104.46	104.67

FILE 'CAPLUS' ENTERED AT 09:55:52 ON 05 NOV 2004

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FILE COVERS 1907 - 5 Nov 2004 VOL 141 ISS 19
FILE LAST UPDATED: 3 Nov 2004 (20041103/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 09:48:12 ON 05 NOV 2004)

FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004

L1	3 S	CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/SQEN
L2	7 S	CGTTCCTCTTCCTGCGGCCT/SQEN
L3	3 S	CGTTCCTCTTCC/SQEN
L4	3 S	CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN
L5	3 S	CTGACAGAGCCCAACTCTTC/SQEN
L6	3 S	CCAACTCTTCGCGGTGGCAG/SQEN
L7	10 S	GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN
L8	3 S	GCTCTAGAATGAACGGTGG/SQEN
L9	3 S	GCTCTAGAATGAACG/SQEN
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L11	1 S	GCTCTAG/SQEN
L12	3 S	CATTTTTTTGTTTGCTCTAGA/SQEN
L13	3 S	CGGGCCAGCAGCTGACA/SQEN

FILE 'CAPLUS' ENTERED AT 09:55:52 ON 05 NOV 2004

=> s L1

L14 1 L1

=> d ibib, abs L145

L145 NOT FOUND

The L-number entered has not been defined in this session, or it has been deleted. To see the L-numbers currently defined in this session, enter DISPLAY HISTORY at an arrow prompt (=>).

=> end

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:end

=> d his

(FILE 'HOME' ENTERED AT 09:48:12 ON 05 NOV 2004)

FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004

L1	3 S	CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/SQEN
L2	7 S	CGTTCCTCTTCCTGCGGCCT/SQEN
L3	3 S	CGTTCCTCTTCC/SQEN
L4	3 S	CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN
L5	3 S	CTGACAGAGCCCAACTCTTC/SQEN
L6	3 S	CCAACTCTTCGCGGTGGCAG/SQEN
L7	10 S	GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN
L8	3 S	GCTCTAGAATGAACGGTGG/SQEN
L9	3 S	GCTCTAGAATGAACG/SQEN

L10 3 S GCTCTAGAATG/SQEN
L11 1 S GCTCTAG/SQEN
L12 3 S CATT TTTTGT TTTGCTCTAGA/SQEN
L13 3 S CGGGCCAGCAGCTGACA/SQEN

FILE 'CAPLUS' ENTERED AT 09:55:52 ON 05 NOV 2004

L14 1 S L1

=> d ibib, abs L14

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:479637 CAPLUS

DOCUMENT NUMBER: 129:91399

TITLE: Methods for detecting and inhibiting the RNA component of telomerase with antisense oligonucleotides and clinical use

INVENTOR(S): Kim, Nam Woo; Wu, Fred; Kealey, James T.; Pruzan, Ronald; Weinrich, Scott L.

PATENT ASSIGNEE(S): Geron Corp., USA

SOURCE: PCT Int. Appl., 80 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9828442	A1	19980702	WO 1997-US23619	19971219
W: AU, CA, JP, MX				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5846723	A	19981208	US 1996-770565	19961220
CA 2274586	AA	19980702	CA 1997-2274586	19971219
AU 9856148	A1	19980717	AU 1998-56148	19971219
AU 733610	B2	20010517		
EP 951568	A1	19991027	EP 1997-952568	19971219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001507229	T2	20010605	JP 1998-529003	19971219
PRIORITY APPLN. INFO.:			US 1996-770564	A 19961220
			US 1996-770565	A 19961220
			WO 1997-US23619	W 19971219

AB Disclosed are methods of using the oligonucleotide for detecting the RNA component of telomerase, diagnosing cancer, determining its prognosis, and inhibiting telomerase activity using polynucleotides that hybridize to the RNA component of mammalian telomerase. Also provided are antisense oligonucleotides specifically hybridize to nucleotide residues 137-196, 290-319, and 350-380 of the cDNA (SEQ. ID 1) encoding human telomerase, and the primers for determination of the RNA component in human telomerase. Pharmaceutical composition containing expression vectors for the antisense oligonucleotides is also claimed.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s L2

L15 3 L2

=> d ibib, abs L15 103

3 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE

The answer numbers requested are not in the answer set.

ENTER ANSWER NUMBER OR RANGE (1):end

=> d his

(FILE 'HOME' ENTERED AT 09:48:12 ON 05 NOV 2004)

FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004

L1 3 S CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/SQEN
L2 7 S CGTTCCTCTTCCTGCGGCCT/SQEN
L3 3 S CGTTCCTCTTCC/SQEN
L4 3 S CTGACAGAGCCCCAACTCTTCGCGGTGGCAG/SQEN
L5 3 S CTGACAGAGCCCCAACTCTTC/SQEN
L6 3 S CCAACTCTTCGCGGTGGCAG/SQEN
L7 10 S GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN
L8 3 S GCTCTAGAATGAACGGTGG/SQEN
L9 3 S GCTCTAGAATGAACG/SQEN
L10 3 S GCTCTAGAATG/SQEN
L11 1 S GCTCTAG/SQEN
L12 3 S CATTTTTTTGTTTGCTCTAGA/SQEN
L13 3 S CGGGCCAGCAGCTGACA/SQEN

FILE 'CAPLUS' ENTERED AT 09:55:52 ON 05 NOV 2004

L14 1 S L1
L15 3 S L2

=> d ibib, abs L15 1-3

L15 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:670047 CAPLUS

DOCUMENT NUMBER: 131:297110

TITLE: Purification of human telomerase

INVENTOR(S): Weinrich, Scott L.; Atkinson, Edward M., III;
Lichtsteiner, Serge P.; Vasserot, Alain P.; Pruzan,
Ronald A.; Kealey, James T.

PATENT ASSIGNEE(S): Geron Corporation, USA

SOURCE: U.S., 34 pp., Cont.-in-part of U.S. Ser. No. 510,736,
abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5968506	A	19991019	US 1997-833377	19970404
US 6261556	B1	20010717	US 1999-420056	19991018
US 6517834	B1	20030211	US 2000-717828	20001120
US 6545133	B1	20030408	US 2000-717829	20001120
US 2003186282	A1	20031002	US 2002-330872	20021224
US 6787133	B2	20040907		

PRIORITY APPLN. INFO.:
US 1995-510736 B2 19950804
US 1997-833377 A1 19970404
US 1999-420056 A2 19991018
US 2000-717828 A1 20001120

AB This invention provides purified human telomerase and methods of purifying it. The methods involve the use of several sequential steps, including the use of a first matrix that binds mols. bearing neg. charges, a matrix that binds mols. bearing pos. charges, a second matrix that binds mols. bearing neg. charges, an affinity purification step and a matrix that separates mols. according to their size. Human telomerase has been purified to over 60,000-fold purity over cytoplasmic crude cell preps. Two polypeptides that co-purify with fractions containing telomerase activity are present in the purified fractions in approx. stoichiometric amts. with the RNA component of human telomerase have been isolated. One polypeptide has amino and sequences consistent with nucleolin. The other polypeptide has amino acid sequences consistent with elongation factor 2 homolog.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:682538 CAPLUS

DOCUMENT NUMBER: 129:299661

TITLE: Purification of human telomerase

INVENTOR(S): Weinrich, Scott L.; Atkinson, Edward M., III;
Lichtsteiner, Serge P.; Vasserot, Alain P.; Pruzan,
Ronald A.; Kealey, James T.

PATENT ASSIGNEE(S): Geron Corporation, USA

SOURCE: PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9845450	A1	19981015	WO 1997-US6012	19970404
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
AU 9724548	A1	19981030	AU 1997-24548	19970404
AU 746306	B2	20020418		
EP 981627	A1	20000301	EP 1997-920326	19970404
EP 981627	B1	20030917		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
JP 2001509681	T2	20010724	JP 1998-542718	19970404
AT 250130	E	20031015	AT 1997-920326	19970404
ES 2208895	T3	20040616	ES 1997-920326	19970404
MX 9909005	A	20000630	MX 1999-9005	19991001
PRIORITY APPLN. INFO.:			EP 1997-920326	A 19970404
			WO 1997-US6012	A 19970404

AB This invention provides purified human telomerase and methods of purifying it. The methods involve the use of several sequential steps, including the use of a first matrix that binds mols. bearing neg. charges, a matrix that binds mols. bearing pos. charges, a second matrix that binds mols. bearing neg. charges, an affinity purification step and a matrix that separates mols. according to their size. Thus, human telomerase was purified to over 60,000-fold purity from 293 cell exts. Two proteins that copurify with fractions containing telomerase activity and that are present in the purified fractions in approx. stoichiometric amts. with the RNA component were isolated. One protein has a sequence consistent with nucleolin, the other with elongation factor 2 homolog.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:479637 CAPLUS

DOCUMENT NUMBER: 129:91399

TITLE: Methods for detecting and inhibiting the RNA component of telomerase with antisense oligonucleotides and clinical use

INVENTOR(S): Kim, Nam Woo; Wu, Fred; Kealey, James T.; Pruzan, Ronald; Weinrich, Scott L.

PATENT ASSIGNEE(S): Geron Corp., USA

SOURCE: PCT Int. Appl., 80 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9828442	A1	19980702	WO 1997-US23619	19971219
W: AU, CA, JP, MX				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5846723	A	19981208	US 1996-770565	19961220
CA 2274586	AA	19980702	CA 1997-2274586	19971219
AU 9856148	A1	19980717	AU 1998-56148	19971219
AU 733610	B2	20010517		
EP 951568	A1	19991027	EP 1997-952568	19971219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001507229	T2	20010605	JP 1998-529003	19971219
PRIORITY APPLN. INFO.:				
			US 1996-770564	A 19961220
			US 1996-770565	A 19961220
			WO 1997-US23619	W 19971219

AB Disclosed are methods of using the oligonucleotide for detecting the RNA component of telomerase, diagnosing cancer, determining its prognosis, and inhibiting telomerase activity using polynucleotides that hybridize to the RNA component of mammalian telomerase. Also provided are antisense oligonucleotides specifically hybridize to nucleotide residues 137-196, 290-319, and 350-380 of the cDNA (SEQ. ID 1) encoding human telomerase, and the primers for determination of the RNA component in human telomerase. Pharmaceutical composition containing expression vectors for the antisense oligonucleotides is also claimed.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 09:48:12 ON 05 NOV 2004)

FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004

L1	3 S	CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/SQEN
L2	7 S	CGTTCCTCTTCCTGCGGCCT/SQEN
L3	3 S	CGTTCCTCTTCC/SQEN
L4	3 S	CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN
L5	3 S	CTGACAGAGCCCAACTCTTC/SQEN
L6	3 S	CCAACTCTTCGCGGTGGCAG/SQEN
L7	10 S	GCTCTAGAATGAACGGTGGAAGCGGCAGG/SQEN
L8	3 S	GCTCTAGAATGAACGGTGG/SQEN
L9	3 S	GCTCTAGAATGAACG/SQEN
L10	3 S	GCTCTAGAATG/SQEN
L11	1 S	GCTCTAG/SQEN
L12	3 S	CATTTTTTGTGTTGCTCTAGA/SQEN
L13	3 S	CGGGCCAGCAGCTGACA/SQEN

FILE 'CAPLUS' ENTERED AT 09:55:52 ON 05 NOV 2004

L14	1 S	L1
L15	3 S	L2

=> s L3

L16	1	L3
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=> s L4

L17	1	L4
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=> s L5
L18 1 L5

=> s L6
L19 1 L6

=> s L7
L20 5 L7

=> d ibib, abs L20 1-5

L20 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:276752 CAPLUS

DOCUMENT NUMBER: 138:283318

TITLE: Sequential purification of mammalian telomerase
including affinity chromatography using
oligonucleotide sorbents

INVENTOR(S): Weinrich, Scott L.; Atkinson, Edward M., III;
Lichtsteiner, Serge P.; Vasserot, Alain P.; Pruzan,
Ronald A.

PATENT ASSIGNEE(S): Geron Corporation, USA

SOURCE: U.S., 24 pp., Cont.-in-part of U.S. 6,261,556.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6545133	B1	20030408	US 2000-717829	20001120
US 5968506	A	19991019	US 1997-833377	19970404
US 6261556	B1	20010717	US 1999-420056	19991018
PRIORITY APPLN. INFO.:			US 1995-510736	B2 19950804
			US 1997-833377	A1 19970404
			US 1999-420056	A2 19991018

AB This invention provides purified mammalian telomerase and methods of purifying it. The methods involve the use of several sequential steps, including the use of anion exchange matrix, heparin-containing matrix, spermidine-containing matrixes, gel filtration chromatog. or gradient centrifugation, and affinity purification. An affinity agent (oligonucleotide complementary to the RNA component of telomerase labeled with biotin and isolated with matrix-bound streptavidin) is disclosed. A method for preparing human telomerase that is 65,320-fold purified compared to that in crude cell extract is described. The method comprises six steps in succession: (1) CHAPS detergent S-100 extract preparation from 293 cells; (2) chromatog. of the S-100 extract on POROS 50HQ matrix; (3) chromatog. of the POROS 50HQ active fractions on POROS Heparin 20HE-1 matrix; (4) chromatog. of the POROS Heparin 20 HE-1 active fractions on POROS spermidine matrix; (5) chromatog. of the POROS Spermidine active fractions on Superose 6 sizing column; and (6) chromatog. of the Superose 6 sizing column active fractions on Oligo 5 affinity matrix.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:113309 CAPLUS

DOCUMENT NUMBER: 138:165719

TITLE: Chromatographic purification of human telomerase from
293 cells

INVENTOR(S): Weinrich, Scott L.; Atkinson, Edward M., III;
Lichtsteiner, Serge P.; Vasserot, Alain P.; Pruzan,
Ronald A.

PATENT ASSIGNEE(S): Geron Corporation, USA
SOURCE: U.S., 24 pp., Cont.-in-part of U.S. 6,261,556.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6517834	B1	20030211	US 2000-717828	20001120
US 5968506	A	19991019	US 1997-833377	19970404
US 6261556	B1	20010717	US 1999-420056	19991018
US 2003186282	A1	20031002	US 2002-330872	20021224
US 6787133	B2	20040907		

PRIORITY APPLN. INFO.:
US 1995-510736 B2 19950804
US 1997-833377 A1 19970404
US 1999-420056 A2 19991018
US 2000-717828 A1 20001120

AB This invention provides purified human telomerase and methods of purifying it. The methods involve the use of several sequential steps, including the use of matrixes that bind mols. bearing neg. charges, matrixes that bind mols. bearing pos. charges, intermediate-selectivity matrixes, methods that sep. mols. based on their size, shape, or buoyant d., and by affinity purification Human telomerase was purified to over 60,000-fold purity from 293 cell exts. This method comprises six steps in succession: (1) CHAPS detergent S-100 extract preparation from 293 cells; (2) chromatog. of the S-100 extract on POROS 50HQ matrix; (3) chromatog. of the POROS 50HQ active fractions of POROS Heparin 20HE1 matrix; (4) chromatog. of the POROS Heparin 20HE1 active fractions on POROS spermidine matrix; (5) chromatog. of the POROS Spermidine active fractions on Superose 6 sizing column; and (6) chromatog. of the Superose 6 sizing column active fractions on Oligo 5 affinity matrix. A telomere primer elongation assay for mammalian telomerase is also described.

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:114597 CAPLUS
DOCUMENT NUMBER: 136:321154
TITLE: Allosteric inhibitors of telomerase: oligonucleotide N3'→P5' phosphoramidates
AUTHOR(S): Pruzan, Ronald; Pongracz, Krisztina; Gietzen, Kimberly; Wallweber, Gerald; Gryaznov, Sergei
CORPORATE SOURCE: Geron Corp., Menlo Park, CA, 94025, USA
SOURCE: Nucleic Acids Research (2002), 30(2), 559-568
CODEN: NARHAD; ISSN: 0305-1048
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Telomerase is a ribonucleoprotein responsible for maintaining telomeres in nearly all eukaryotic cells. The enzyme is able to utilize a short segment of its RNA subunit as the template for the reverse transcription of d(TTAGGG) repeats onto the ends of human chromosomes. Transfection with telomerase was shown to confer immortality on several types of human cells. Moreover, telomerase activation appears to be one of the key events required for malignant transformation of normal cells. Inhibition of telomerase activity in transformed cells results in the cessation of cell proliferation in cultures and provides the rationale for the selection of telomerase as a target for anticancer therapy. Using oligonucleotide N3'→P5' phosphoramidates (NPs) we have identified a region of the human telomerase RNA subunit (hTR) .apprx.100 nt downstream from the template region whose structural integrity appears crucial for telomerase enzymic activity. The oligonucleotides targeted to this

segment of hTR are potent and specific inhibitors of telomerase activity in biochem. assays. Mutant telomerase, in which 3 nt of hTR were not complementary to a 15 nt NP, was found to be refractory to inhibition by that oligonucleotide. We also demonstrated that the binding of NP oligonucleotides to this hTR allosteric site results in a marked decrease in the affinity of a telomerase substrate (single-stranded DNA primer) for the enzyme.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:747525 CAPLUS

DOCUMENT NUMBER: 135:308851

TITLE: Methods for inhibiting telomerase activity with antisense oligonucleotides and therapeutic uses thereof

INVENTOR(S): Gryaznov, Sergei M.; Pruzan, Ronald; Weirich, Scott L.

PATENT ASSIGNEE(S): Geron Corporation, USA

SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074136	A2	20011011	WO 2001-US10476	20010330
WO 2001074136	A3	20031030		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001049723	A5	20011015	AU 2001-49723	20010330

PRIORITY APPLN. INFO.: US 2000-540119 A 20000331
WO 2001-US10476 W 20010330

AB Antisense oligonucleotide inhibitors and methods for inhibiting telomerase activity are provided. The polynucleotide inhibitors are substantially complementary to a portion of the human telomerase RNA component in a non-template region between nucleotide 137 and nucleotide 179 and contain certain modified nucleotide residues or certain modified linkages between adjacent nucleotides. The antisense oligonucleotide inhibitors are useful in method for the treatment or prevention of a telomerase-related condition, such as cancer.

L20 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:479637 CAPLUS

DOCUMENT NUMBER: 129:91399

TITLE: Methods for detecting and inhibiting the RNA component of telomerase with antisense oligonucleotides and clinical use

INVENTOR(S): Kim, Nam Woo; Wu, Fred; Kealey, James T.; Pruzan, Ronald; Weinrich, Scott L.

PATENT ASSIGNEE(S): Geron Corp., USA

SOURCE: PCT Int. Appl., 80 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9828442	A1	19980702	WO 1997-US23619	19971219
W: AU, CA, JP, MX				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5846723	A	19981208	US 1996-770565	19961220
CA 2274586	AA	19980702	CA 1997-2274586	19971219
AU 9856148	A1	19980717	AU 1998-56148	19971219
AU 733610	B2	20010517		
EP 951568	A1	19991027	EP 1997-952568	19971219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001507229	T2	20010605	JP 1998-529003	19971219
PRIORITY APPLN. INFO.:				
			US 1996-770564	A 19961220
			US 1996-770565	A 19961220
			WO 1997-US23619	W 19971219

AB Disclosed are methods of using the oligonucleotide for detecting the RNA component of telomerase, diagnosing cancer, determining its prognosis, and inhibiting telomerase activity using polynucleotides that hybridize to the RNA component of mammalian telomerase. Also provided are antisense oligonucleotides specifically hybridize to nucleotide residues 137-196, 290-319, and 350-380 of the cDNA (SEQ. ID 1) encoding human telomerase, and the primers for determination of the RNA component in human telomerase. Pharmaceutical composition containing expression vectors for the antisense oligonucleotides is also claimed.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004

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L2	7 S	CGTTCCTCTTCTGCGGCCT/SQEN
L3	3 S	CGTTCCTCTTCC/SQEN
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L5	3 S	CTGACAGAGCCCAACTCTTC/SQEN
L6	3 S	CCAACTCTTCGCGGTGGCAG/SQEN
L7	10 S	GCTCTAGAATGAACGGTGAAGCGGCAGG/SQEN
L8	3 S	GCTCTAGAATGAACGGTGG/SQEN
L9	3 S	GCTCTAGAATGAACG/SQEN
L10	3 S	GCTCTAGAATG/SQEN
L11	1 S	GCTCTAG/SQEN
L12	3 S	CATTTTTTTGTTTGCTCTAGA/SQEN
L13	3 S	CGGGCCAGCAGCTGACA/SQEN

FILE 'CAPLUS' ENTERED AT 09:55:52 ON 05 NOV 2004

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L16	1 S	L3
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L19	1 S	L6
L20	5 S	L7

=> s L8

L21	1 L8
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=> s L9

L22	1 L9
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=> s L10

L23 2 L10

=> d ibib, abs L23

L23 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:747525 CAPLUS

DOCUMENT NUMBER: 135:308851

TITLE: Methods for inhibiting telomerase activity with antisense oligonucleotides and therapeutic uses thereof

INVENTOR(S): Gryaznov, Sergei M.; Pruzan, Ronald; Weirich, Scott L.

PATENT ASSIGNEE(S): Geron Corporation, USA

SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074136	A2	20011011	WO 2001-US10476	20010330
WO 2001074136	A3	20031030		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GN, GW, ML, MR, NE, SN, TD, TG			
AU 2001049723	A5	20011015	AU 2001-49723	20010330
PRIORITY APPLN. INFO.:			US 2000-540119	A 20000331
			WO 2001-US10476	W 20010330

AB Antisense oligonucleotide inhibitors and methods for inhibiting telomerase activity are provided. The polynucleotide inhibitors are substantially complementary to a portion of the human telomerase RNA component in a non-template region between nucleotide 137 and nucleotide 179 and contain certain modified nucleotide residues or certain modified linkages between adjacent nucleotides. The antisense oligonucleotide inhibitors are useful in method for the treatment or prevention of a telomerase-related condition, such as cancer.

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L24 0 L11

=> d his

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FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004

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L3	3 S	CGTTCCTCTTCC/SQEN
L4	3 S	CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN
L5	3 S	CTGACAGAGCCCAACTCTTC/SQEN
L6	3 S	CCAACCTCTTCGCGGTGGCAG/SQEN
L7	10 S	GCTCTAGAATGAACGGTGAAGCGGCAGG/SQEN
L8	3 S	GCTCTAGAATGAACGGTGG/SQEN
L9	3 S	GCTCTAGAATGAACG/SQEN
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L11	1 S	GCTCTAG/SQEN

L12 3 S CATT TTTTGTTTGCTCTAGA/SQEN
L13 3 S CGGGCCAGCAGCTGACA/SQEN

FILE 'CAPLUS' ENTERED AT 09:55:52 ON 05 NOV 2004

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=> s L11
L25 0 L11

=> s L12
L26 1 L12

=> s L13
L27 1 L13

=> d his

(FILE 'HOME' ENTERED AT 09:48:12 ON 05 NOV 2004)

FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004

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L2 7 S CGTTCCTCTTCCTGCGGCCT/SQEN
L3 3 S CGTTCCTCTTCC/SQEN
L4 3 S CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN
L5 3 S CTGACAGAGCCCAACTCTTC/SQEN
L6 3 S CCAACTCTTCGCGGTGGCAG/SQEN
L7 10 S GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN
L8 3 S GCTCTAGAATGAACGGTGG/SQEN
L9 3 S GCTCTAGAATGAACG/SQEN
L10 3 S GCTCTAGAATG/SQEN
L11 1 S GCTCTAG/SQEN
L12 3 S CATT TTTTGTTTGCTCTAGA/SQEN
L13 3 S CGGGCCAGCAGCTGACA/SQEN

FILE 'CAPLUS' ENTERED AT 09:55:52 ON 05 NOV 2004

L14 1 S L1
L15 3 S L2
L16 1 S L3
L17 1 S L4
L18 1 S L5
L19 1 S L6
L20 5 S L7
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L23 2 S L10
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L25 0 S L11
L26 1 S L12
L27 1 S L13

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      N
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L30   0 CAGGCCTTTTCAGGCCGCAGGAAGAGGAACGG/SQEN
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